

Chun Chieh (Willy) Chang

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EDUCATION

University of Illinois at Urbana-Champaign

Master of Computer Science

- **Courses:** Database Systems, Communication Networks, Cloud Computing Application, Advanced Operating Systems

Champaign, IL, USA

Aug. 2022 – Dec 2024 (expected)

Northeastern University

Master of Science in Computer Software Engineering

Seattle, WA, USA

Sep. 2022 – Transferred

Fu Jen Catholic University

Bachelor of Science in Computer Science

Taipei, Taiwan

Aug. 2015 – June. 2019

TECHNICAL SKILLS

Languages: TypeScript, Javascript, Python, Swift

Web: React, Next.js, Svelte, NestJS, Express.js, RESTful

Libraries: Zustand, TanStack, Axios, Vite, TailwindCSS

Databases: MongoDB, PostgreSQL, MySQL, Neo4j

Cloud: AWS (EC2, Lambda, S3, DynamoDB), GCP, Firebase

DevOps: Docker, Kubernetes, Ansible, Github Actions, Linux

WORK EXPERIENCE

Kocree

Software Engineer Intern (Full Stack)

Champaign, IL, USA

May. 2024 – Present

[Kocree](#) is a music AI startup founded by Stanford, MIT, UChicago and UIUC Professor and PhD.

- Designed and implemented end-to-end systems using Svelte, Nest.js, Python, PostgreSQL, and other full stack toolkits
- Utilized RxJS framework to develop model views controllers and services to support the backend framework for Kocree's revolutionary AI music creation application
- Strengthened the application's data processing and storage infrastructure by integrating Kafka, Redis, and ElasticSearch in a Kubernetes environment, ensuring a 50% increase in scalability and reliability.

University of Illinois Urbana-Champaign

Software Engineer, part-time (Full Stack)

Champaign, IL, USA

Mar. 2024 – Present

- Developed [Attendance System](#) for UIUC under Prof. Abdussalam Alawini, serving over 5,000 students across 30+ courses.
- Utilized React, TailwindCSS to engineer responsive UI components, alongside Zustand for efficient state management.
- Developed a secure Express.js backend with MongoDB, implementing Google OAuth JWT authentication.
- Implemented a CI/CD pipeline via GitHub Actions, facilitating automatic deployment and dynamic server/database setup on GCP for course scalability.

Showu Tech

Software Engineer (Frontend)

Taipei, Taiwan

May. 2022 – Aug. 2022

- Increased user engagement by 12% and reduced bounce rate by 22% by leading the development of Job Recruitment System with React and Bootstrap, focusing on cross-device compatibility and intuitive design.
- Reduced search time by 16%, by integrating Leaflet.js with Openrouteservice for dynamic, interactive search maps, making location-based searches more efficient and user-friendly.
- Achieved a 89% reduction in potential security breaches by leading comprehensive vulnerability scans with OWASP ZAP.

Institute for Information Industry

Software Enginner intern (iOS)

Taipei, Taiwan

Nov. 2021 – Mar. 2022

- Improved code maintainability and scalability using MVVM architecture, simplifying updates and feature expansions.
- Boosted user retention by 15% through the development of over 10 new features, such as advanced messaging capabilities with MessageKit and engaging user interactions with location and multimedia messaging via MapKit and AVFoundation.
- Streamlined user login and increased security by integrating third-party authentication services(Facebook, Google, Apple).
- Implemented a robust backend infrastructure using Firebase Real-time Database, Cloud Storage, Cloud Firestore, and Firebase Authentication, enhancing data management efficiency and user authentication security.

PROJECTS

X Clone (Full Stack) | Next.js, Express.js, GraphQL, Supabase, AWS

Nov. 2023

- Developed application with Next.js and MaterialUI for the frontend, Express.js and Apollo Server (GraphQL) for backend and data management, and Prisma ORM for type-safe database interactions with Supabase.
- Integrated AWS S3 for scalable media storage, ensuring high availability and performance of user-generated content.
- Deployed backend on AWS EC2, utilizing Load Balancer for optimized performance and scalability.

CS PhD Research Dashboard (Full Stack) | Python, Flask, MySQL, MongoDB, Neo4j

May. 2023

- Develop a platform using Dash Plotly and Flask to match applicants with universities and faculty by research interests, leveraging MySQL, MongoDB, and Neo4j to analyze CS trending topics and assess research strengths over time.